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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/040,339	11/01/2001	Jack A. Denton	21-1155	2480
7590	11/14/2003		EXAMINER	ZANELLI, MICHAEL J
			ART UNIT	PAPER NUMBER
			3661	

DATE MAILED: 11/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/040,339	DENTON, JACK A.	
	Examiner Michael J. Zanelli	Art Unit 3661	
<i>-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --</i>			
<b>Period for Reply</b>			
<b>A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.</b>			
<ul style="list-style-type: none"> <li>- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.</li> <li>- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.</li> <li>- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.</li> <li>- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).</li> <li>- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).</li> </ul>			
<b>Status</b>			
1) <input checked="" type="checkbox"/> Responsive to communication(s) filed on <u>18 September 2003</u> .			
2a) <input checked="" type="checkbox"/> This action is <b>FINAL</b> .		2b) <input type="checkbox"/> This action is non-final.	
3) <input type="checkbox"/> Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.			
<b>Disposition of Claims</b>			
4) <input checked="" type="checkbox"/> Claim(s) <u>1-8,11-24,32-35,37-40,43-46 and 51-53</u> is/are pending in the application.			
4a) Of the above claim(s) _____ is/are withdrawn from consideration.			
5) <input checked="" type="checkbox"/> Claim(s) <u>37-40,43-46 and 51-53</u> is/are allowed.			
6) <input checked="" type="checkbox"/> Claim(s) <u>1-8 and 11-16</u> is/are rejected.			
7) <input checked="" type="checkbox"/> Claim(s) <u>17-24 and 32-35</u> is/are objected to.			
8) <input type="checkbox"/> Claim(s) _____ are subject to restriction and/or election requirement.			
<b>Application Papers</b>			
9) <input type="checkbox"/> The specification is objected to by the Examiner.			
10) <input checked="" type="checkbox"/> The drawing(s) filed on <u>01 November 2001</u> is/are: a) <input type="checkbox"/> accepted or b) <input checked="" type="checkbox"/> objected to by the Examiner.			
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).			
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).			
11) <input type="checkbox"/> The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.			
<b>Priority under 35 U.S.C. §§ 119 and 120</b>			
12) <input type="checkbox"/> Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).			
a) <input type="checkbox"/> All b) <input type="checkbox"/> Some * c) <input type="checkbox"/> None of:			
1. <input type="checkbox"/> Certified copies of the priority documents have been received.			
2. <input type="checkbox"/> Certified copies of the priority documents have been received in Application No. _____.			
3. <input type="checkbox"/> Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).			
* See the attached detailed Office action for a list of the certified copies not received.			
13) <input type="checkbox"/> Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.			
a) <input type="checkbox"/> The translation of the foreign language provisional application has been received.			
14) <input type="checkbox"/> Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.			
<b>Attachment(s)</b>			
1) <input type="checkbox"/> Notice of References Cited (PTO-892)		4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ .	
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)		5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)	
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .		6) <input type="checkbox"/> Other: _____ .	

## **DETAILED ACTION**

1. This is responsive to the communication filed 9/18/03. Claims 1-8, 11-24, 32-35, 37-40, 43-46 and 51-53 are pending.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. The drawings stand objected to under 37 CFR 1.83(a). Contrary to applicant's comments regarding Fig. 1, to date no proposed drawing corrections have been received.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid **abandonment** of the application. The objection to the drawings will not be held in abeyance.

4. The disclosure stands objected to because of the following informalities:

A. On page 11, line 5 item "61" not shown. At line 19, card labeled "40" not "41" in Fig. 7.

B. Page 13, line 21 no item "50" shown in the drawings.

Appropriate correction is required.

5. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. As per claim 1, at lines 11-12 and 15, "said visual display unit" lacks antecedence.

B. All claims depending from a rejected base claim are also rejected as containing the same deficiencies.

6. Claims 5, 6, 11 and 14 stand rejected under 35 U.S.C. 102(b) as being anticipated by Henderson et al. (5,944,764).

A. As per claim 5, Henderson ('764) discloses a system and method for monitoring the work cycle of a material moving machine (Abs.). Position measurements of the machine are taken on a periodic basis (col. 3, lines 44-50) and recorded in a database which correlates the movements of the machine over an actual work site with a dynamic model of the work site (Fig. 1; col. 7, lines 5-22). A data processing means onboard the machine produces a graphical display of the work and enables one to analyze the work performed by the machine (col. 8, lines 2-13). Operation of the machine may be triggered based on input from the user via the transmission shift (col. 6, lines 45-48).

B. As per claim 6, as above wherein the position information may be provided by a GPS receiver (col. 3, lines 44-50).

C. As per claims 11 and 14, as above wherein the data processing means (i.e., computer) onboard the machine generates a graphical representation of the work site as the machine operates thereon. As the machine moves back and forth, a swath is generated indicating what material has been moved relative to the material that has not been moved (Fig. 1; col. 7, lines 5-9; col. 6, lines 40-48; col. 8, lines 3-14).

7. Claims 5, 6, 11 and 14, stand further rejected under 35 U.S.C. 102(b) as being anticipated by Henderson et al. (6,114,993).

A. Henderson ('993) discloses essentially the same system as Henderson ('764) above, but includes providing the work cycle information to a site manager for analysis (col. 3, lines 62-67). See also Fig. 2, Fig. 6 and col. 9, lines 14-25.

8. Claims 5, 6, 11 and 14, stand rejected under 35 U.S.C. 102(b) as being anticipated by Gudat et al. (5,646,844).

A. As per claim 5, Gudat discloses a system for real-time monitoring of material moving equipment in which the position of the equipment is determined and used to update a database representing the work site (col. 2, lines 21-28). The database is a geographical model of the site as it is altered by the equipment such that the work performed by the equipment can be analyzed (Fig. 6 and 8; col. 2, lines 43-46). A database can be located on each machine or at a central location (col. 5, line 60 to col. 6, line 9).

B. As per claim 6, as above wherein the position information may be provided by a GPS receiver (col. 5, lines 22-24).

C. As per claims 11 and 14, as above wherein the data processing means (i.e., computer) onboard the machine generates a graphical representation of the work site as the machine operates thereon.

9. Claims 7, 8, 12, 13, 15 and 16 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Henderson et al. (5,944,764) in view of Wright et al. (6,084,542).

A. As per claim 7, the claimed invention recites a housing that contains the GPS receiver and antenna. Although Henderson ('764) does not explicitly describe the physical construction of the position determining equipment, one of ordinary skill in the art would have found it obvious to construct the position determining equipment of Henderson et al. in such a manner as to protect it from the harsh mining environment.

B. As per claims 8, 12, 13, 15 and 16, Henderson describes periodically recording the position of the material moving machine as it traverses a work site and updates a topographical model accordingly. Henderson is silent as to how the stored information is downloaded from the machine. Wright discloses a data recorder in which a removable storage card can be used to transmit the information to an external computer for analysis (Abs.). One of ordinary skill in the art would have found it obvious to use the teachings of Wright as a means of downloading the altered work site model of Henderson to an external computing device for analysis. Wright specifically suggests using PCMCIA cards or other well-known storage devices for this purpose (col. 5, lines 31-35).

10. Claims 37-40, 43-46 and 51-53 are allowed.
11. Claims 17-24 and 32-35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. **REMARKS**

A. With regards to the proposed drawing corrections, to date no proposed changes and/or replacement drawing have been received.

B. With regards to applicant's arguments regarding the patentability of claims 5-8 and 11-16 based on their dependency on amended claim 1, note that claim 5 is an independent claim from which claims 6-8 and 11-16 depend. Further note that cancelled claims 9 and 10, which were incorporated into claim 1, were originally dependent on claim 5 as well. Thus, claims 5-8 and 11-16 stand rejected as set forth in

the first Office action since applicant has not amended any of these claims to incorporate the allowable subject matter as argued.

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Zanelli whose telephone number is (703) 305-9756. The examiner can normally be reached on Monday-Thursday 5:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William A. Cuchlinski can be reached on (703) 308-3873. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

/mjz



MICHAEL J. ZANELLI  
PRIMARY EXAMINER